We claim:

1. A method for obtaining nucleic acid from a biological sample and binding the nucleic acid to a solid phase, comprising:

combining the sample with at least one protease and at least one zwitterionic compound to form a combination; and

exposing the combination to at least one solid phase to bind the nucleic acid.

2. The method of claim 1, further comprising at least one first chaotrope.

3. The method of claim 2, further comprising isolating the nucleic acid.

4. The method of claim 1, wherein the at least one zwitterionic compound comprises at least one of: n-Octyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Decyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Dodecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Tetradecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Hexadecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Octadecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; Lauryldimethylamine N-oxide (LDAO™); 3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate (CHAPS™); 3-[(3- Cholamidopropyl)dimethylammonio]-2-hydroxy-1-propanesulfonate (CHAPSO™); N,N-bis(3-D-Gluconamidopropyl)cholamide (BigCHAP™); N-Dodecyl-N,N-dimethylglycine (Empigen BB™); N -dodecyl-N, N -(dimethylammonio)butyrate (DDMAB™); ASB-14™; ASB-16™; dodecylbetaine; lauraminopropyl betaine; dipalmitoylphosphatidylcholine (lecithin); N-dodecyl-N, N-

(dimethylammonio) undecanoate (DDMAU); n-decyl-N,N-dimethylglycine; N-octylphosphocholine; N-nonylphosphocholine; N-decylphosphocholine; N-dodecylphosphocholine; N-tetradecylphosphocholine; N-hexadecylphosphocholine; Octyl phospho-n-methylethanolamine; Decyl phospho-n-methylethanolamine; Dodecyl phospho-n-methylethanolamine; Cyclohexylethylphosphocholine; Cyclohexylpropylphosphocholine; Cyclohexylbutylphosphocholine, dimethylethylammonium propane sulfonate; 3-(1-pyridino)-1-propane sulfonate; dimethyl-(2-hydroxyethyl)-(3-sulfopropyl)-ammonium; 3-(1-methylpiperidinium)-1-sulfonate; dimethylbenzylammonium propane sulfonate; dimethylethyl-(3-sulfopropyl)-ammonium; or N-phenyl-methyl-N,N-dimethylammonium-propane-sulfonate.

5. The method of claim 3, further comprising at least one second chaotrope.

6. The method of claim 5, wherein the at least one first chaotrope, the at least one second chaotrope, or both the at least one first chaotrope and the at least one second chaotrope comprises at least one of: guanidine hydrochloride (GuHCl), guanidinium thiocyanate (GuSCN), urea, sodium bromide (NaBr), sodium iodide (NaI), sodium perchlorate ($NaClO_4$), sodium thiocyanate (NaSCN), potassium thiocyanate (KSCN), lithium chloride (LiCl), lithium bromide (LiBr), lithium iodide (LiI), potassium iodide (KI), potassium chloride (KCl), potassium bromide (KBr), tetrabutyl ammonium bromide, tetrabutyl ammonium chloride, tetrabutyl ammonium iodide,

tetrapropyl ammonium bromide, tetrapropyl ammonium chloride, tetrapropyl ammonium iodide, or thiourea (NH_2CSNH_2).

7. The method of claim 3, further comprising at least one non-ionic detergent.

8. The method of claim 3, wherein the isolated nucleic acid comprises genomic deoxyribonucleic acid (gDNA).

9. The method of claim 2, further comprising at least one cationic detergent.

10. The method of claim 9, wherein the at least one cationic detergent comprises at least one of: cetyltrimethylammonium bromide (CTAB); cetyltrimethylammonium chloride (CTACl); tetradecyltrimethylammonium bromide (TTAB); tetradecyltrimethylammonium chloride (TTACl); dodecyltrimethylammonium bromide (DTAB); dodecyltrimethylammonium chloride (DTACl); dodecylethyldimethylammonium bromide (DEDTAB); decyltrimethylammonium bromide (D_{10}TAB); or dodecyltriphenylphosphonium bromide (DTPB).

11. The method of claim 2, further comprising at least one cationic detergent and at least one second chaotrope.

12. The method of claim 11, wherein the at least one cationic detergent comprises CTAB and the at least one second chaotrope comprises guanidium thiocyanate (GuSCN).

13. The method of claim 12, wherein the at least one protease comprises proteinase K; the at least one first chaotrope comprises guanine hydrochloride (GuHCl); the at least one zwitterionic compound comprises at least one of: n-Octyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, n-Decyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, n-Dodecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, n-Tetradecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, n-Hexadecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, n-Octadecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, Lauryldimethylamine N-oxide, N-Dodecyl-N,N-dimethylglycine, or N -dodecyl-N, N -(dimethylammonio)butyrate; and the sample comprises whole blood, white blood cells, buffy coat, or lysates, extracts, or material obtained therefrom.

14. A method for obtaining nucleic acid from a biological sample and binding the nucleic acid to a solid phase, comprising:

combining the sample with at least one chaotrope and at least one zwitterionic compound to form a combination; and

exposing the combination to at least one solid phase bind the nucleic acid.

15. The method of claim 14, further comprising isolating the nucleic acid.

16. The method of claim 15, wherein the at least one zwitterionic compound comprises at least one of: n-Octyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Decyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Dodecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Tetradecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Hexadecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Octadecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; Lauryldimethylamine N-oxide (LDAO™); 3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate (CHAPS™); 3-[(3- Cholamidopropyl)dimethylammonio]-2-hydroxy-1-propanesulfonate (CHAPSO™); N,N-bis(3-D-Gluconamidopropyl)cholamide (BigCHAP™); N-Dodecyl-N,N-dimethylglycine (Empigen BB™); N -dodecyl-N, N -(dimethylammonio)butyrate (DDMAB™); ASB-14™; ASB-16™; dodecylbetaine; lauraminopropyl betaine; dipalmitoylphosphatidylcholine (lecithin); N-dodecyl-N, N-(dimethylammonio) undecanoate (DDMAU); n-decyl-N,N-dimethylglycine; N-octylphosphocholine; N-nonylphosphocholine; N-decylphosphocholine; N-dodecylphosphocholine; N-tetradecylphosphocholine; N-hexadecylphosphocholine; Octyl phospho-n-methylethanolamine; Decyl phospho-n-methylethanolamine; Dodecyl phospho-n-methylethanolamine; Cyclohexylethylphosphocholine; Cyclohexylpropylphosphocholine; Cyclohexylbutylphosphocholine, dimethylethylammonium propane sulfonate; 3-(1-pyridino)-1-propane sulfonate; dimethyl-(2-hydroxyethyl)-(3-sulfopropyl)-ammonium; 3-(1-methylpiperidinium)-1-sulfonate; dimethylbenzylammonium propane sulfonate; dimethylethyl-(3-

sulfopropyl)-ammonium; or N-phenyl-methyl-N,N-dimethylammonium-propane-sulfonate.

17. The method of claim 15, wherein the at least one first chaotrope comprises at least one of: GuHCl; GuSCN; urea; NaBr; NaI; $NaClO_4$; NaSCN; LiCl; LiBr; LiI; KI; KCl; KBr; tetrabutyl ammonium bromide; tetrabutyl ammonium chloride; tetrabutyl ammonium iodide; tetrapropyl ammonium bromide; tetrapropyl ammonium chloride; tetrapropyl ammonium iodide; or NH_2CSNH_2.

18. The method of claim 15, further comprising at least one non-ionic detergent.

19. The method of claim 15, wherein the isolated nucleic acid comprises gDNA.

20. The method of claim 15, wherein the sample comprises at least one of: swabs, urine, sputum, saliva, semen, lymphatic fluid, amniotic fluid, cerebrospinal fluid, peritoneal effusions, fluid from cysts, synovial fluids, vitreous humor, aqueous humor, bursal fluid, eye washes, eye aspirates, plasma, serum, pulmonary lavage, lung aspirates, tissues, tissue culture cells, or lysates, extracts, or material obtained therefrom; the at least one chaotrope comprises GuSCN; and the at least one zwitterionic compound comprises at least one of: n-Octyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, n-Decyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, n-Dodecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, n-Tetradecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, n-Hexadecyl-N,N-dimethyl-3-ammonio-1-

propanesulfonate, n-Octadecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate, Lauryldimethylamine N-oxide, N-Dodecyl-N,N-dimethylglycine, or N -dodecyl-N, N -(dimethylammonio)butyrate.

21. A kit comprising, at least one zwitterionic compound; at least one chaotrope; and at least one solid phase.

22. The kit of claim 21, further comprising at least one protease.

23. The kit of claim 22, wherein the at least one protease comprises at least one of: Proteinase K, Pronase, subtilisin Carlsberg (subtilopeptidase A), thermolysin, pancreatic protease, Proteinase R, Protease T, Subtilisin A, Subtilisin DY, alkaline serine proteases from *Streptomyces griseus* or *Bacillus licheniformis,* dispase, thermitase, trypsin, chymotrypsin, Protease S, Protease Type XVIII from *Rhizopus* sp, Protease Type XIX, or Protease Type I.

24. The kit of claim 21, further comprising at least one cationic detergent.

25. The kit of claim 21, further comprising at least one wash solution.

26. The kit of claim 25, wherein the at least one wash solution comprises at least one alcohol.

27. The kit of claim 21, further comprising at least one elution solution.

28. The kit of claim 27, wherein the at least one elution solution comprises at least one alkaline solution, at least one alkaline buffer, or at least one alkaline solution and at least one alkaline buffer.

29. The kit of claim 28, wherein the at least one alkaline elution solution comprises at least one buffer, at least one sodium hydroxide (NaOH) solution, or at least one potassium hydroxide (KOH) solution.

30. The kit of claim 21, further comprising at least one buffer solution, at least one buffer salt, or at least one buffer solution and at least one buffer salt.

31. The kit of claim 21, wherein the at least one zwitterionic compound comprises at least one of: n-Octyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Decyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Dodecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Tetradecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Hexadecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; n-Octadecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate; Lauryldimethylamine N-oxide (LDAO™); 3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate (CHAPS™); 3-[(3- Cholamidopropyl)dimethylammonio]-2-hydroxy-1-propanesulfonate (CHAPSO™); N,N-bis(3-D-Gluconamidopropyl)cholamide (BigCHAP); N-Dodecyl-N,N-dimethylglycine (Empigen BB™); N -dodecyl-N, N -

(dimethylammonio)butyrate (DDMAB™); ASB-14™; ASB-16™; dodecylbetaine; lauraminopropyl betaine; dipalmitoylphosphatidylcholine (lecithin); N-dodecyl-N, N-(dimethylammonio) undecanoate (DDMAU); n-decyl-N,N-dimethylglycine; N-octylphosphocholine; N-nonylphosphocholine; N-decylphosphocholine; N-dodecylphosphocholine; N-tetradecylphosphocholine; N-hexadecylphosphocholine; Octyl phospho-n-methylethanolamine; Decyl phospho-n-methylethanolamine; Dodecyl phospho-n-methylethanolamine; Cyclohexylethylphosphocholine; Cyclohexylpropylphosphocholine; Cyclohexylbutylphosphocholine, dimethylethylammonium propane sulfonate; 3-(1-pyridino)-1-propane sulfonate; dimethyl-(2-hydroxyethyl)-(3-sulfopropyl)-ammonium; 3-(1-methylpiperidinium)-1-sulfonate; dimethylbenzylammonium propane sulfonate; dimethylethyl-(3-sulfopropyl)-ammonium; or N-phenyl-methyl-N,N-dimethylammonium-propane-sulfonate; the at least one chaotrope comprises at least one of: GuHCl; GuSCN; urea; NaBr; NaI; $NaClO_4$; NaSCN; LiCl; LiBr; LiI; KI; KCl; KBr; tetrabutyl ammonium bromide; tetrabutyl ammonium chloride; tetrabutyl ammonium iodide; tetrapropyl ammonium bromide; tetrapropyl ammonium chloride; tetrapropyl ammonium iodide; or NH_2CSNH_2; and the at least one solid phase comprises at least one of: silica particles; silicon dioxide; silica gel; fumed silica; diatomaceous earth; glass; alkylsilica; aluminum silicate; sodium silicate, zirconium silicate; quartz; or sand.